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| 10/595,896 | 05/18/2006 | Thomas Klein | 72233 | 8699 |

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| EXAMINER | |
|---|---|
| DANG, KET D | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3742 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/595,896 | KLEIN, THOMAS | |
| | Examiner | Art Unit | |
| | KET D. DANG | 3742 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *18 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16 and 18-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/03/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in Germany Parent Application No. 103 54 880.7, filed on November 21, 2003.

2. This office action is responsive to the amendment filed on August 3, 2009. As directed by the amendment: claims 1, 3, 5, 15, 18 have been amended, claim 17 has been cancelled and claims 19-21 have been added. Thus, claims 1-6 and 18-21 are presently pending in this application.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haczynski et al. (US Pat No. 5,866,874) in view of Tsutsumi (EP 1358973 A1).

5. Regarding claims 1 and 19, Haczynski et al. disclose a fixing device (col.. 3, lines 55-56) for attaching the welding torch device 10 (Fig. 1) (Abstract) to the welding robot (Abstract) (col. 1, lines 16-18); a receiving device 26 (Fig. 1) for holding a welding torch 10 (Fig. 1) and for transferring driven rotatory (col.. 3, lines 55-56) motions to the welding torch; an electrical connection for a welding power cable 20 (Fig. 1) (col. 3, lines

42-44), by means of which a robot side of the welding torch device can be electrically connected to a welding power source (Fig. 1) (col. 3, lines 44-47); a current transfer device 22, via which the welding power cable 20 (Fig. 1) (col. 3, lines 42-44) can be electrically connected to a welding torch 10 (Fig. 1) side of the welding torch device, an essentially centric leadthrough, through which expendable supply material (col. 3, lines 40-66) required for the welding process can be guided in the direction of the receiving device 26 (Fig. 1); the receiving device 26 (Fig. 1) and/or the fixing device are connected to the stator in an electrically conductive manner by means of an electric contact means (col. 5, lines 60-64); and wherein an introduction of supply material into the welding torch the leadthrough is coaxial 14 (fig, 1) arranged in the welding torch device and has a recess with a longitudinal axis which is in alignment with a rotational axis of the connection device (col. 3, lines 60-66; col. 4, lines 6-52; col. 6, lines 37-62).

Haczynski et al. fail to disclose wherein the current transfer device has a stator, which is provided for the rotationally fixed arrangement in relation to the robot arm, but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors, which, as a result, are rotatable in relation to the stator; and a rotational axis of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator.

However, Tsutsumi teaches wherein the current transfer device has a stator 1 (Fig. 1) (abstract), which is provided for the rotationally fixed arrangement in relation to the robot arm (Page 2, paragraphs 0002 and 0009), but can be rotated in relation to the

connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors 6 (Fig. 1), which, as a result, can be rotated in relation to the stator 1 (Fig. 1) (Page 6, paragraph 0045); and a rotational axis of the rotor (Page 4, paragraph 0024) is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include a stator, a robot arm, and rotors, as suggested and taught by Tsutsumi, for the purpose of passing different electric signals among robot welding components (Page 2, paragraph 0008).

6. Regarding claims 2-7 and 21, Haczynski et al. disclose the claimed invention and wherein a longitudinal axis (See Figure 3) of the leadthrough is aligned with the rotational axis of the connection device (col. 4, lines 6-52; col. 6, lines 37-62); a leadthrough of the receiving device for welding wire (col. 4, line 31-34) for the welding torch 10 (Fig.1), whereby the leadthrough of the stator and the leadthrough of the receiving device 26 (Fig.1) run at least essentially coaxially to one another; wherein a longitudinal axis (col. 4, lines 11-15) of a recess of the leadthrough of the stator assembly runs at least essentially coaxially to the rotational axis of the rotatory motion of the connection flange 9 (Fig. 1) on the robot side or to rotational axis of the rotatory motion of the connection device (col. 6, lines 37-62); wherein a common rotational axis of the fixing device (col. 3, lines 55-56), the receiving device runs coaxially to a longitudinal axis (col. 4, lines 11-15) of the leadthrough of the stator; further comprising

insulating medium, which electrically insulates (col. 3, lines 37-39) the fixing device from the stator, whereby the stator and the receiving device 26 (Fig. 1) are connected to one another in an electrically conductive manner by means of a stator to receiving device contact means;

Haczynski et al. fail to disclose wherein the stator assembly has a rotationally fixed electric connection for the welding cable, through which the rotational axis of the connection device runs whereby the electrical connection is arranged within the stator. However, Tsutsumi teaches wherein the stator 1 (Fig. 1) has a rotationally fixed electric connection (Page 4, paragraph 0024) for the welding cable 25 (Fig. 1), through which the rotational axis of the connection device runs whereby the electrical connection is arranged within the stator (paragraphs 0003 and 0032). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include a stator, electric connection, and welding cable as suggested and taught by Tsutsumi, for the purpose of passing different electric connections among robot welding components (Page 2, paragraph 0008).

7. Regarding claims 8-13, Haczynski et al. disclose the claimed invention, except for wherein the stator to receiving device contact means has elements, which are rotated together with the rotor about an axis, whereby the rotational axis of these elements are aligned with the rotational axis of the connection device of the robot; wherein the contact means is embodied as a sliding contact means; further comprising a force means, with which at least one said sliding contact element of the sliding contact means can be pressed against a contact partner; two force means, with which the at

least one sliding contact element can be pressed against contact partners in the axial and radial directions in relation to the axis of the rotatory motion; wherein the force means are springy, and the at least one sliding contact element can be pressed against both a first contact partner radially surrounding the leadthrough; and a second contact partner axially offset to the sliding contact element; a bell-shaped section of the stator, in which the sliding contact means is arranged.

However, Tsutsumi teaches wherein the stator 1 (Fig. 1) to receiving device contact means has elements, which are rotated together (Page 6, paragraph 0045) with the rotor 6 (Fig. 1) about an axis, whereby the rotational axis (Page 4, paragraph 0024) of these elements are aligned with the rotational axis of the connection device of the robot (Page 2, paragraphs 0002 and 0009); wherein the contact means is embodied as a sliding contact means 26 (Fig. 1) (Paragraph 33); further comprising a force means (Page 5, paragraph 0033), with which at least one said sliding contact element (Page 5, paragraph 0033) of the sliding contact means can be pressed against a contact partner; two force 48 (two sides Fig. 1) means, with which the at least one sliding contact element 26 (Fig. 1) can be pressed against contact partners in the axial and radial directions in relation to the axis of the rotatory motion (Page 4, paragraph 0024); wherein the force means are springy 48 (Fig. 1) (Paragraph 52), and the at least one sliding contact element 26 (Fig. 1) can be pressed against both a first contact partner radially surrounding the leadthrough; and a second contact partner axially offset to the sliding contact element 26 (Fig. 1); a bell-shaped section of the stator 1 (Fig. 1), in which the sliding contact means 26 (Fig. 1) is arranged. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include rotational axis, sliding contact means, and springy as suggested and taught by Tsutsumi, for the purpose of reducing the sliding friction of near by elements (Page 2, paragraph 0005).

8. Regarding claims 14-16, Haczynski et al. disclose the claimed invention and wherein the leadthrough is provided with a recess through which both welding wire (col. 4, lines 31-34), and inert gas (col. 1, lines 20-24) can be fed to the welding torch 10 (Fig. 1) as the expendable supply material (col. 3, lines 40-66); wherein the electric connection for the welding power cable 20 (Fig. 1) (col. 3, lines 42-44) is part of a wall defining the recess,

Haczynski et al. fail to disclose insulating medium, by means of which the fixing device can be electrically insulated against the current transfer device. However, Tsutsumi teaches insulating medium 49 (Fig. 2) (Page 6, paragraph 0041), by means of which the fixing device can be electrically insulated against the current transfer device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include insulating medium as suggested and taught by Tsutsumi, for the purpose of interposing insulator between electrode and spring (Page 6, paragraph 0041).

9. Regarding claims 18 and 20, Haczynski et al. disclose a welding robot for welding workpiece, comprising a welding torch device connected to said flange comprising a fixing device (col. 3, lines 55-56) for attaching the welding torch device 10 (Fig. 1) (Abstract) to the welding robot (col. 1, lines 16-18); a receiving device 26 (Fig. 1)

for holding a welding torch; an electrical connection for a welding power cable 20 (Fig. 1) (col. 3, lines 42-44), by means of which a robot side of the welding torch device (col. 2, lines 25-26) can be electrically connected to a welding power source 22 (Fig. 1) (col. 3, lines 44-47); an essentially centric leadthrough of the stator, through which expendable supply material (col. 3, lines 40-66) required for the welding process can be guided in the direction of the receiving device 26 (Fig. 1); and the receiving device and/or the fixing device can be connected to the stator in an electrically conductive manner by means of an electric contact means (col. 5, lines 60-64); the fixing device (col. 3, lines 55-56) of the rotor, being designed for attaching to the connection device of the robot,

Haczynski et al. fail to disclose a arm robot provided with a connection flange/device; a rotor arrangement; wherein the current transfer device has a stator, which is provided for the rotationally fixed arrangement in relation to the robot arm, but can be rotated in relation to the connection flange on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors, which, as a result, can be rotated in relation to the stator; and a rotational axis of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator assembly.

However, Tsutsumi teaches arm robot (Page 2, paragraphs 0002 and 0009) provided with a connection flange 9 (Fig. 1); a rotor arrangement (paragraphs 0002, 0009, and 0016); wherein the current transfer device has a stator 1 (Fig. 1), which is provided for the rotationally fixed arrangement in relation to the robot arm (Page 2,

paragraphs 0002, and 0009), but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors 6 (Fig. 1), which, as a result, can be rotated in relation to the stator (Page 2, paragraphs 2 & 9); and a rotational axis (Page 4, paragraph 0024) of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor 6 (Fig. 1) can be rotated about the rotational axis as well as about the stator assembly (1 (Fig.1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include flange, a stator, a rotor, and rotational axis as suggested and taught by Tsutsumi, for the purpose of improving structure of robot welding components (Page 2, paragraph 0008) thereby enabling passing different electric signals.

### *Response to Amendments/Arguments*

10. Applicant's arguments with respect to claims 1-16 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Examiner has noted that claims 6-14 and 16 are previously presented, not currently amended. Furthermore, claim 19 is a new claim, not currently amended claim.

Applicant's amendments have overcome claim objections on claim 4 due to a typographical error in the first non-final Office Action. A typographical error was from applicant's publication document.

### *Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571) 270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/
Examiner, Art Unit 3742
November 2, 2009
/TU B HOANG/
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